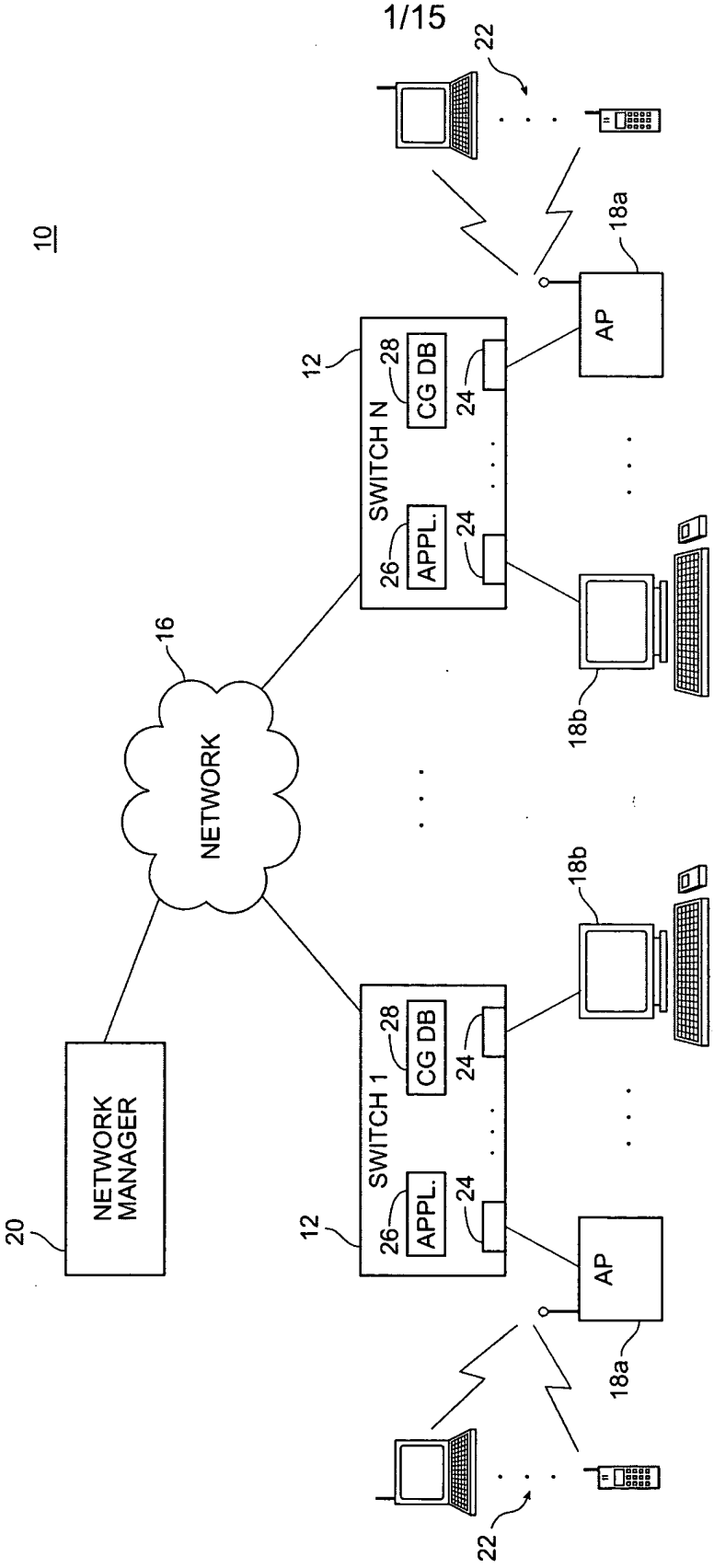
10
NETWORK MANAGER
20
NETWORK
16
SWITCH 1
SWITCH N
12
CG DB
28
APPL.
26
24
AP
18a
18b
22

FIG. 1

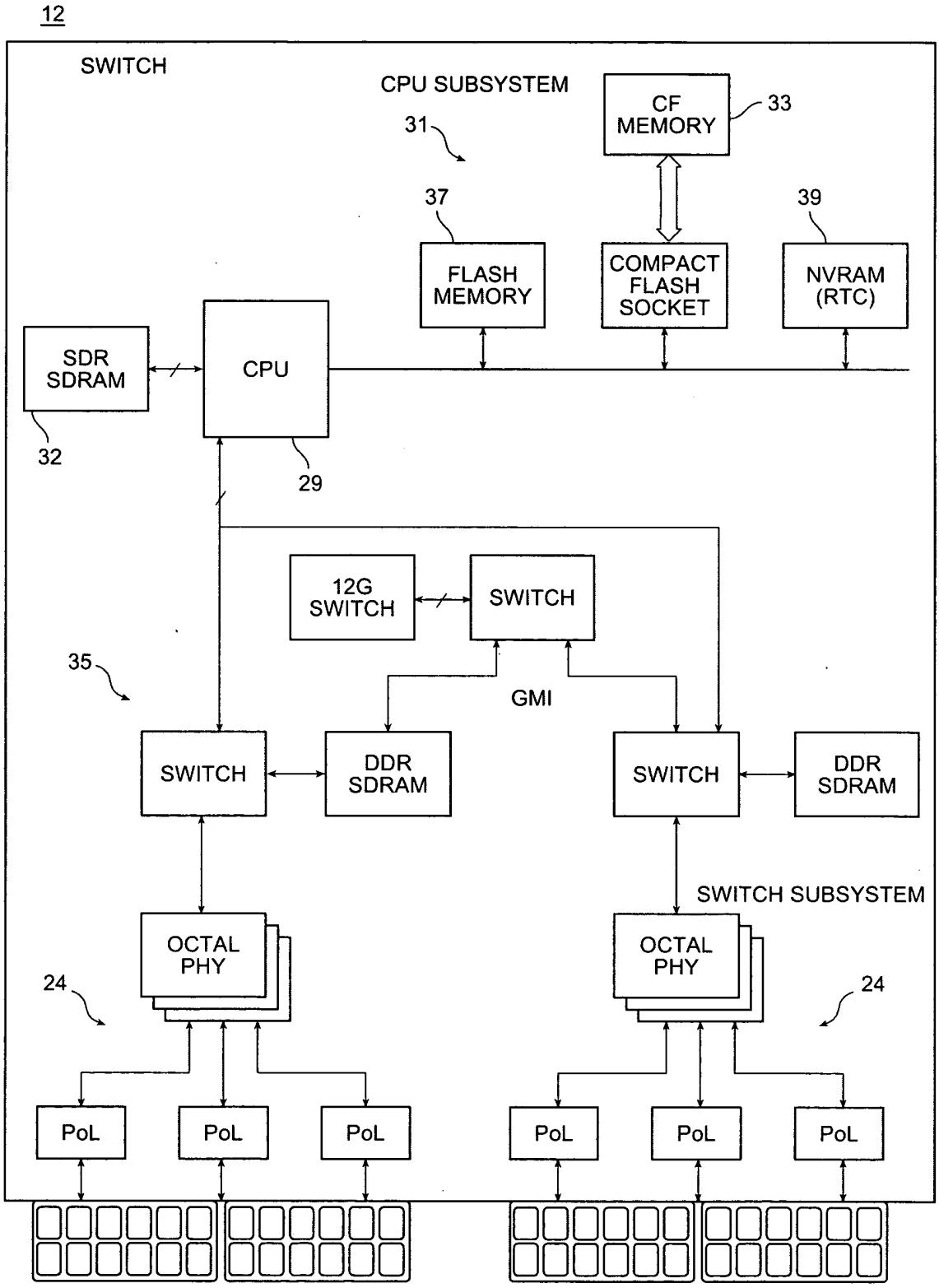
12
SWITCH
CPU SUBSYSTEM
31
CF MEMORY
33
37
39
FLASH MEMORY
COMPACT FLASH SOCKET
NVRAM (RTC)
SDR SDRAM
CPU
32
29
12G SWITCH
SWITCH
35
GMI
SWITCH
DDR SDRAM
SWITCH
DDR SDRAM
SWITCH SUBSYSTEM
OCTAL PHY
OCTAL PHY
24
24
PoL
PoL
PoL
PoL
PoL
PoL

FIG. 2

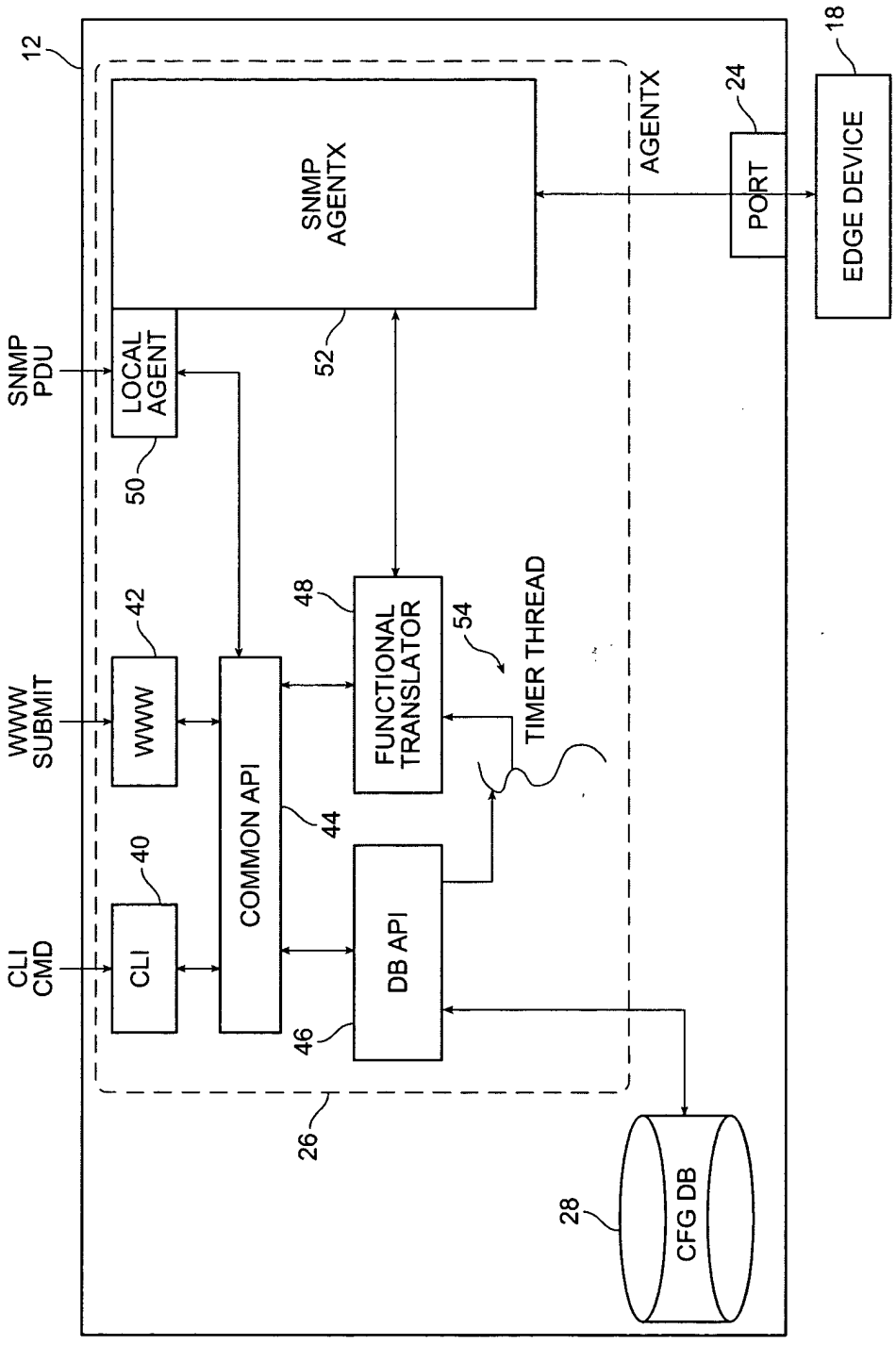
12
SNMP AGENTX
AGENTX
24
PORT
18
EDGE DEVICE
SNMP PDU
LOCAL AGENT
50
52
WWW SUBMIT
42
WWW
48
FUNCTIONAL TRANSLATOR
54
TIMER THREAD
COMMON API
44
CLI CMD
40
CLI
DB API
46
26
28
CFG DB

FIG. 3

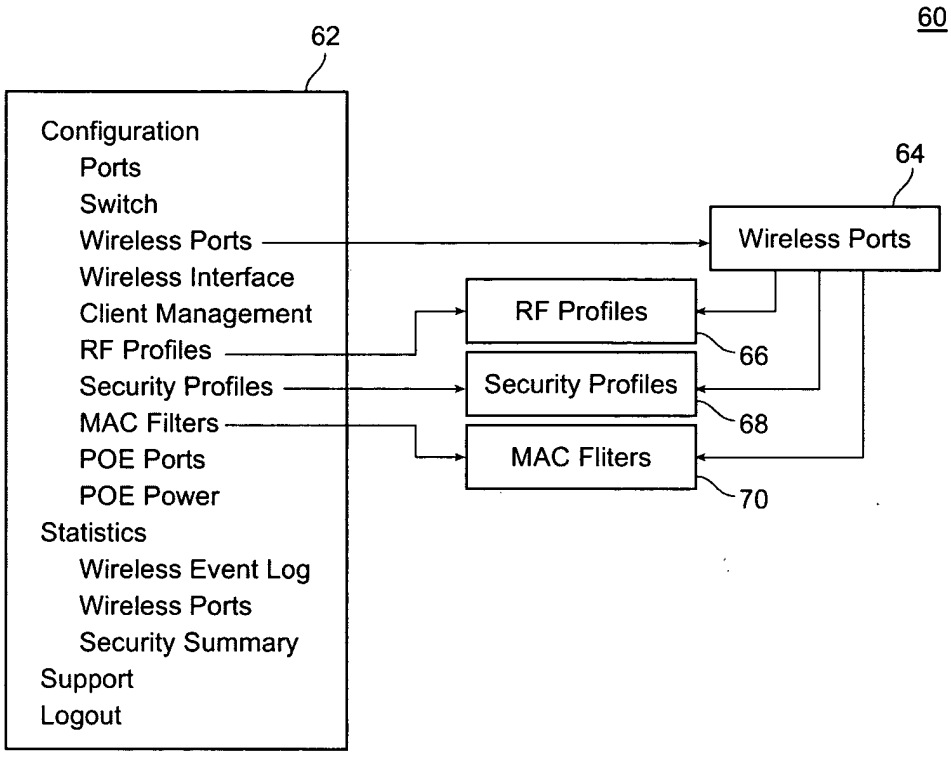
60
62
Configuration
Ports
Switch
Wireless Ports
Wireless Interface
Client Management
RF Profiles
Security Profiles
MAC Filters
POE Ports
POE Power
Statistics
Wireless Event Log
Wireless Ports
Security Summary
Support
Logout
64
Wireless Ports
RF Profiles
66
Security Profiles
68
MAC Fliters
70

FIG. 4

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64

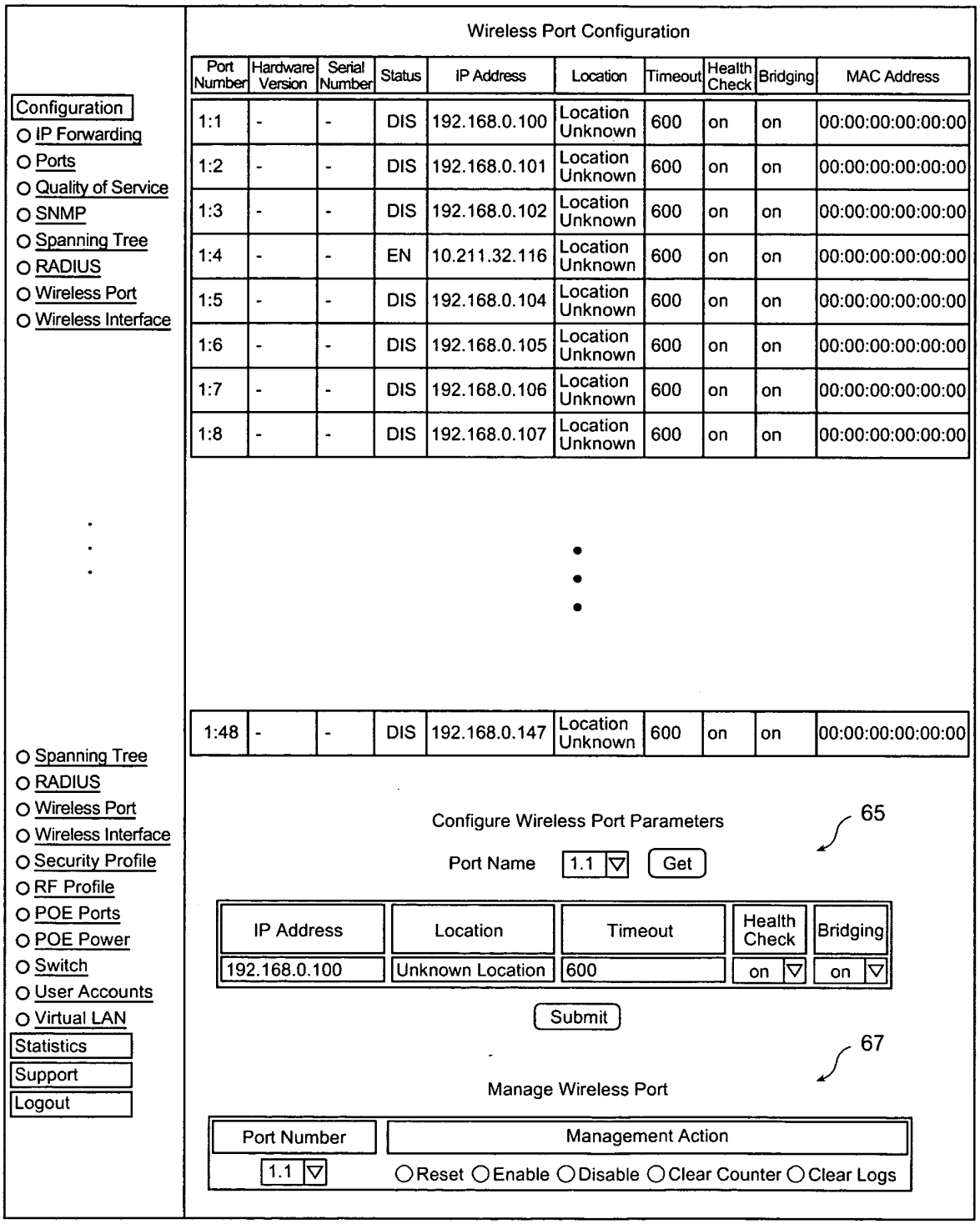
Configuration
IP Forwarding
Ports
Quality of Service
SNMP
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Security Profile
RF Profile
POE Ports
POE Power
Switch
User Accounts
Virtual LAN
Statistics
Support
Logout
Wireless Port Configuration
Port Number
Hardware Version
Serial Number
Status
IP Address
Location
Timeout
Health Check
Bridging
MAC Address
1:1 - - DIS 192.168.0.100 Location Unknown 600 on on 00:00:00:00:00:00
1:2 - - DIS 192.168.0.101 Location Unknown 600 on on 00:00:00:00:00:00
1:3 - - DIS 192.168.0.102 Location Unknown 600 on on 00:00:00:00:00:00
1:4 - - EN 10.211.32.116 Location Unknown 600 on on 00:00:00:00:00:00
1:5 - - DIS 192.168.0.104 Location Unknown 600 on on 00:00:00:00:00:00
1:6 - - DIS 192.168.0.105 Location Unknown 600 on on 00:00:00:00:00:00
1:7 - - DIS 192.168.0.106 Location Unknown 600 on on 00:00:00:00:00:00
1:8 - - DIS 192.168.0.107 Location Unknown 600 on on 00:00:00:00:00:00
1:48 - - DIS 192.168.0.147 Location Unknown 600 on on 00:00:00:00:00:00
Configure Wireless Port Parameters
65
Port Name
1.1
Get
IP Address
Location
Timeout
Health Check
Bridging
192.168.0.100
Unknown Location
600
on
on
Submit
67
Manage Wireless Port
Port Number
Management Action
1.1
Reset
Enable
Disable
Clear Counter
Clear Logs

FIG. 5

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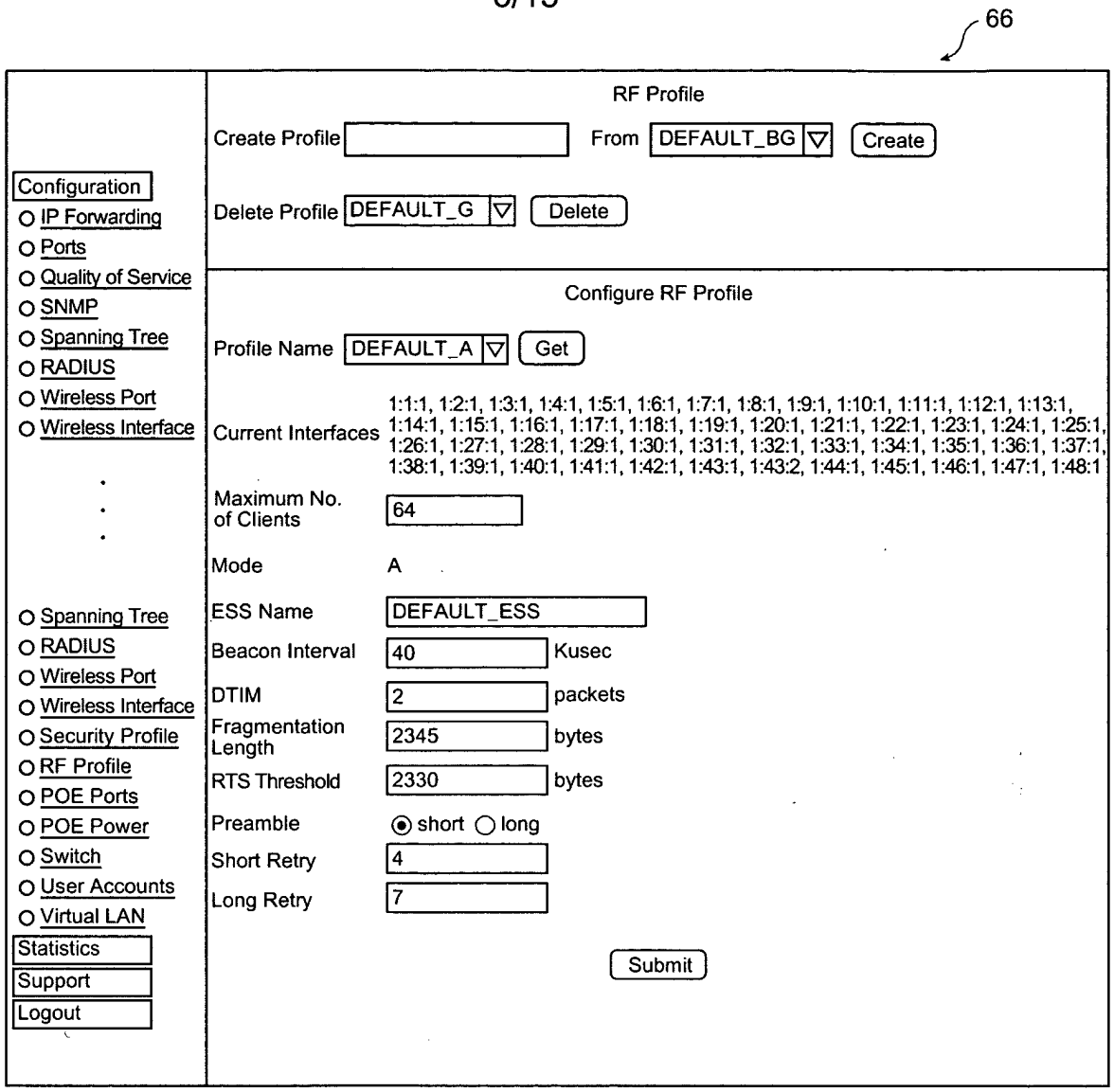
66
Configuration
IP Forwarding
Ports
Quality of Service
SNMP
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Security Profile
RF Profile
POE Ports
POE Power
Switch
User Accounts
Virtual LAN
Statistics
Support
Logout
RF Profile
Create Profile
From DEFAULT_BG
Create
Delete Profile DEFAULT_G
Delete
Configure RF Profile
Profile Name DEFAULT_A
Get
Current Interfaces 1:1:1, 1:2:1, 1:3:1, 1:4:1, 1:5:1, 1:6:1, 1:7:1, 1:8:1, 1:9:1, 1:10:1, 1:11:1, 1:12:1, 1:13:1, 1:14:1, 1:15:1, 1:16:1, 1:17:1, 1:18:1, 1:19:1, 1:20:1, 1:21:1, 1:22:1, 1:23:1, 1:24:1, 1:25:1, 1:26:1, 1:27:1, 1:28:1, 1:29:1, 1:30:1, 1:31:1, 1:32:1, 1:33:1, 1:34:1, 1:35:1, 1:36:1, 1:37:1, 1:38:1, 1:39:1, 1:40:1, 1:41:1, 1:42:1, 1:43:1, 1:43:2, 1:44:1, 1:45:1, 1:46:1, 1:47:1, 1:48:1
Maximum No. of Clients 64
Mode A
ESS Name DEFAULT_ESS
Beacon Interval 40 Kusec
DTIM 2 packets
Fragmentation Length 2345 bytes
RTS Threshold 2330 bytes
Preamble short long
Short Retry 4
Long Retry 7
Submit

FIG. 6

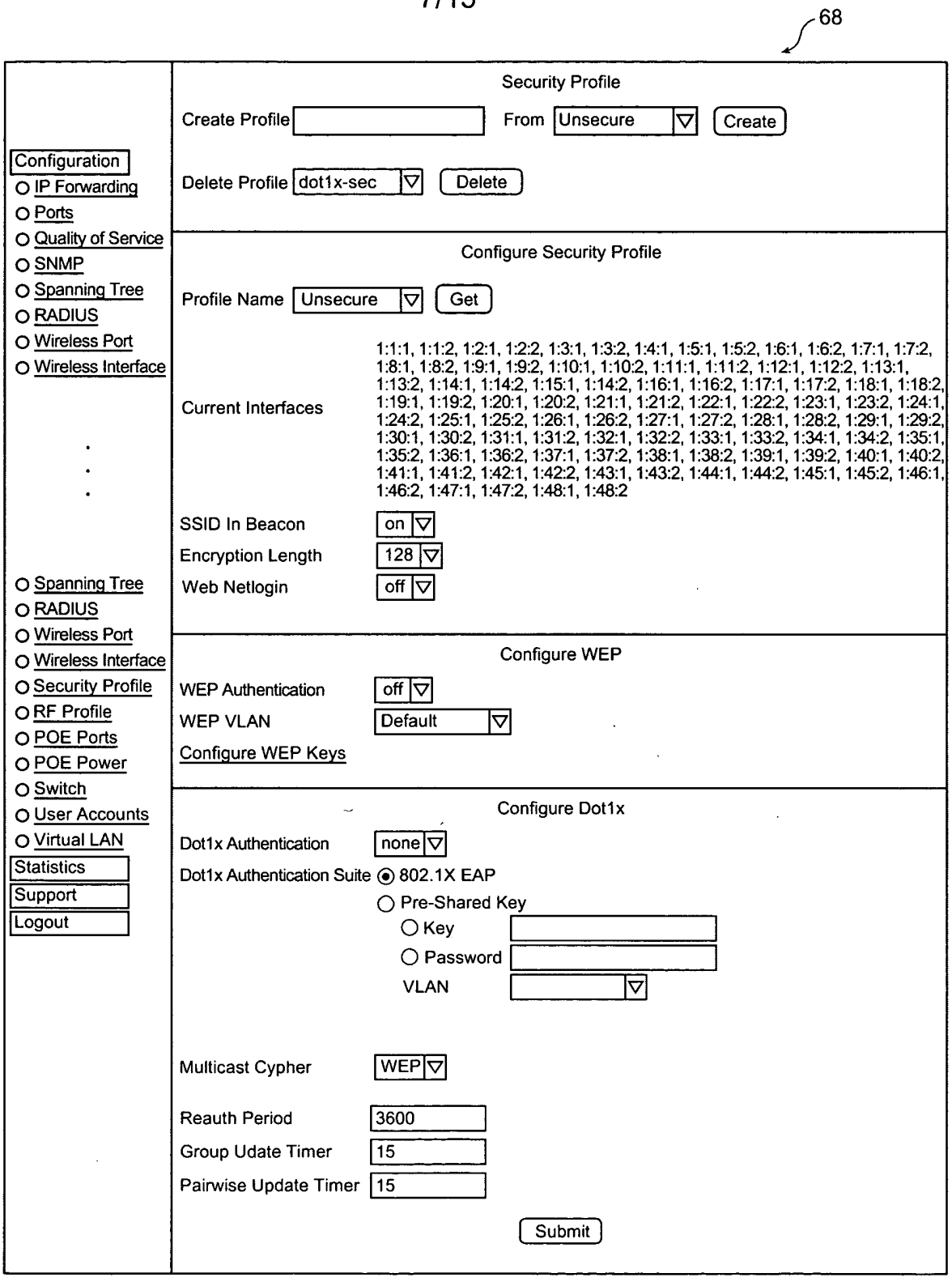
68
Configuration
IP Forwarding
Ports
Quality of Service
SNMP
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Security Profile
RF Profile
POE Ports
POE Power
Switch
User Accounts
Virtual LAN
Statistics
Support
Logout
Security Profile
Create Profile
From Unsecure
Create
Delete Profile dot1x-sec
Delete
Configure Security Profile
Profile Name Unsecure
Get
Current Interfaces
1:1:1, 1:1:2, 1:2:1, 1:2:2, 1:3:1, 1:3:2, 1:4:1, 1:5:1, 1:5:2, 1:6:1, 1:6:2, 1:7:1, 1:7:2, 1:8:1, 1:8:2, 1:9:1, 1:9:2, 1:10:1, 1:10:2, 1:11:1, 1:11:2, 1:12:1, 1:12:2, 1:13:1, 1:13:2, 1:14:1, 1:14:2, 1:15:1, 1:14:2, 1:16:1, 1:16:2, 1:17:1, 1:17:2, 1:18:1, 1:18:2, 1:19:1, 1:19:2, 1:20:1, 1:20:2, 1:21:1, 1:21:2, 1:22:1, 1:22:2, 1:23:1, 1:23:2, 1:24:1, 1:24:2, 1:25:1, 1:25:2, 1:26:1, 1:26:2, 1:27:1, 1:27:2, 1:28:1, 1:28:2, 1:29:1, 1:29:2, 1:30:1, 1:30:2, 1:31:1, 1:31:2, 1:32:1, 1:32:2, 1:33:1, 1:33:2, 1:34:1, 1:34:2, 1:35:1, 1:35:2, 1:36:1, 1:36:2, 1:37:1, 1:37:2, 1:38:1, 1:38:2, 1:39:1, 1:39:2, 1:40:1, 1:40:2, 1:41:1, 1:41:2, 1:42:1, 1:42:2, 1:43:1, 1:43:2, 1:44:1, 1:44:2, 1:45:1, 1:45:2, 1:46:1, 1:46:2, 1:47:1, 1:47:2, 1:48:1, 1:48:2
SSID In Beacon on
Encryption Length 128
Web Netlogin off
Configure WEP
WEP Authentication off
WEP VLAN Default
Configure WEP Keys
Configure Dot1x
Dot1x Authentication none
Dot1x Authentication Suite
802.1X EAP
Pre-Shared Key
Key
Password
VLAN
Multicast Cypher WEP
Reauth Period 3600
Group Udate Timer 15
Pairwise Update Timer 15
Submit

FIG. 7

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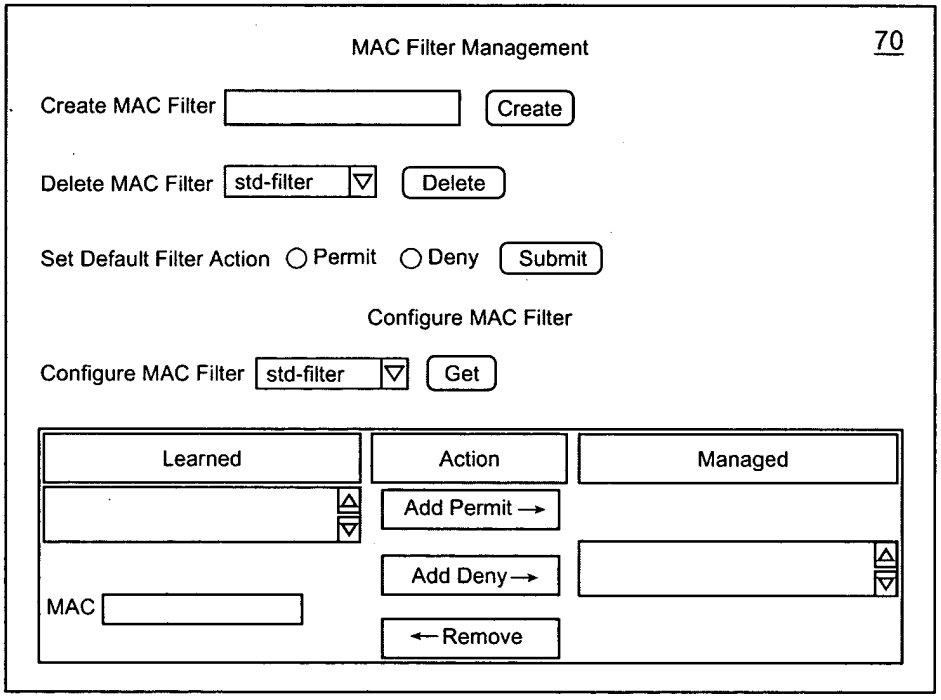
MAC Filter Management
70
Create MAC Filter
Create
Delete MAC Filter
std-filter
Delete
Set Default Filter Action
Permit
Deny
Submit
Configure MAC Filter
Configure MAC Filter
std-filter
Get
Learned
Action
Managed
Add Permit →
Add Deny →
← Remove
MAC

FIG. 8

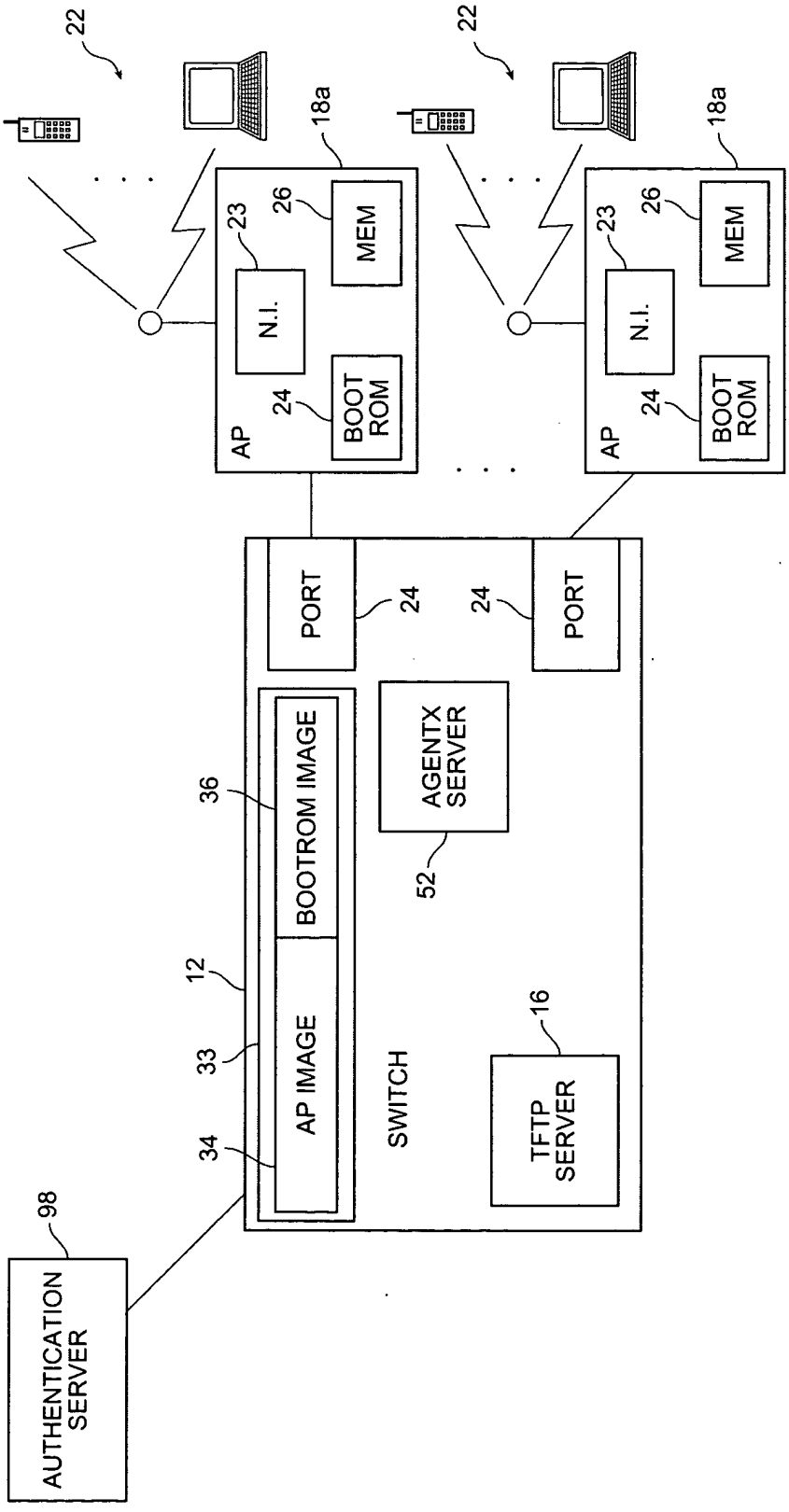
22
22
18a
18a
23
26
MEM
N.I.
24
BOOT ROM
AP
PORT
24
24
PORT
36
BOOTROM IMAGE
AGENTX SERVER
52
12
33
AP IMAGE
SWITCH
16
TFTP SERVER
34
98
AUTHENTICATION SERVER

FIG. 9

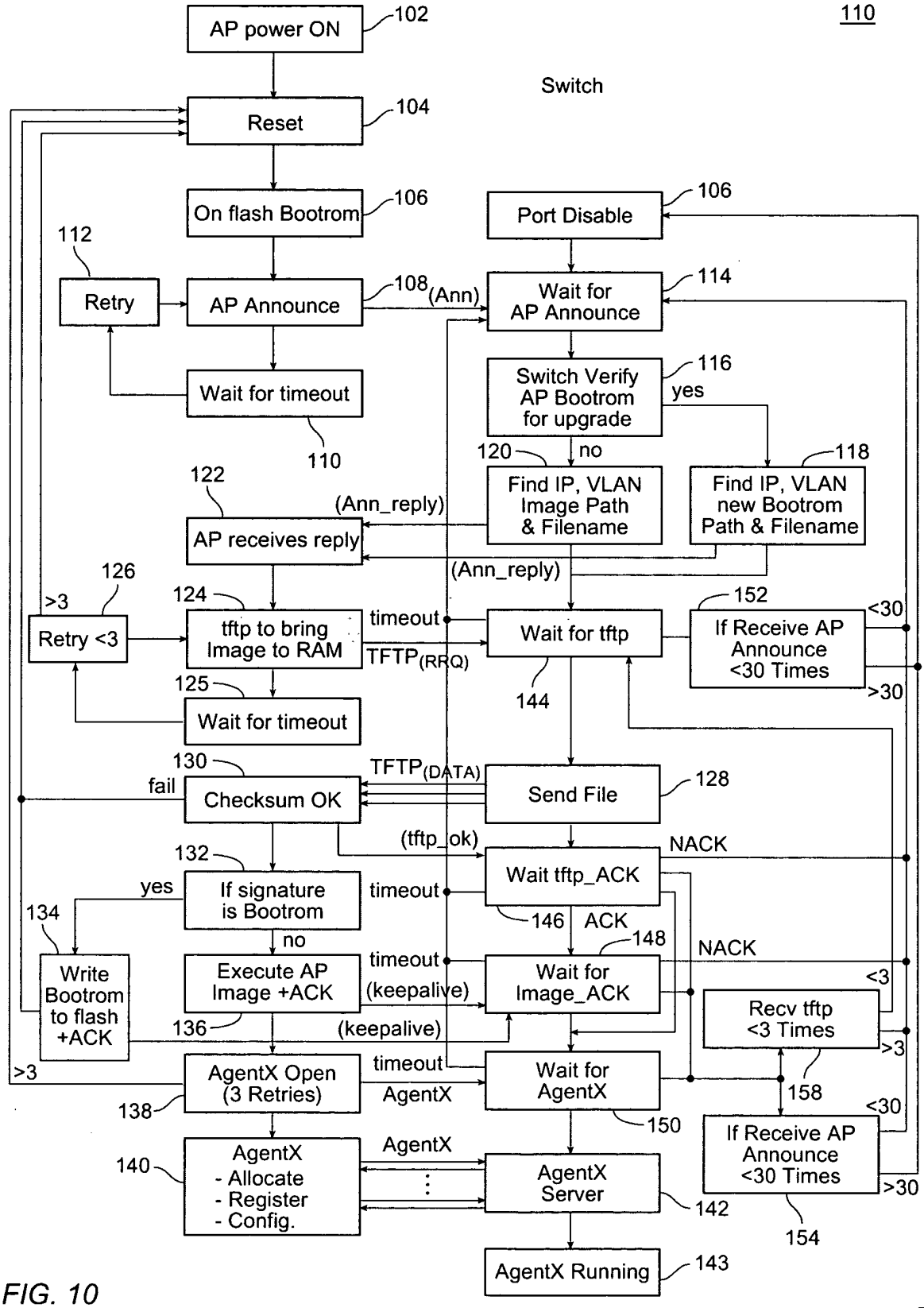
Edge Device
Switch
110
AP power ON
102
Reset
104
On flash Bootrom
106
Retry
112
AP Announce
108
(Ann)
Wait for timeout
110
Port Disable
106
Wait for AP Announce
114
Switch Verify AP Bootrom for upgrade
116
yes
no
120
Find IP, VLAN Image Path & Filename
Find IP, VLAN new Bootrom Path & Filename
118
(Ann_reply)
AP receives reply
122
(Ann_reply)
Retry <3
>3
126
tftp to bring Image to RAM
124
timeout
TFTP(RRQ)
Wait for tftp
144
If Receive AP Announce <30 Times
152
<30
>30
Wait for timeout
125
TFTP(DATA)
Send File
128
Checksum OK
130
fail
(tftp_ok)
NACK
Wait tftp_ACK
146
ACK
If signature is Bootrom
132
yes
timeout
no
Write Bootrom to flash +ACK
134
Execute AP Image +ACK
timeout
(keepalive)
136
(keepalive)
Wait for Image_ACK
148
NACK
<3
Recv tftp <3 Times
>3
158
>3
AgentX Open (3 Retries)
timeout
AgentX
138
Wait for AgentX
150
<30
If Receive AP Announce <30 Times
>30
154
AgentX
- Allocate
- Register
- Config.
140
AgentX
AgentX Server
142
AgentX Running
143

FIG. 10

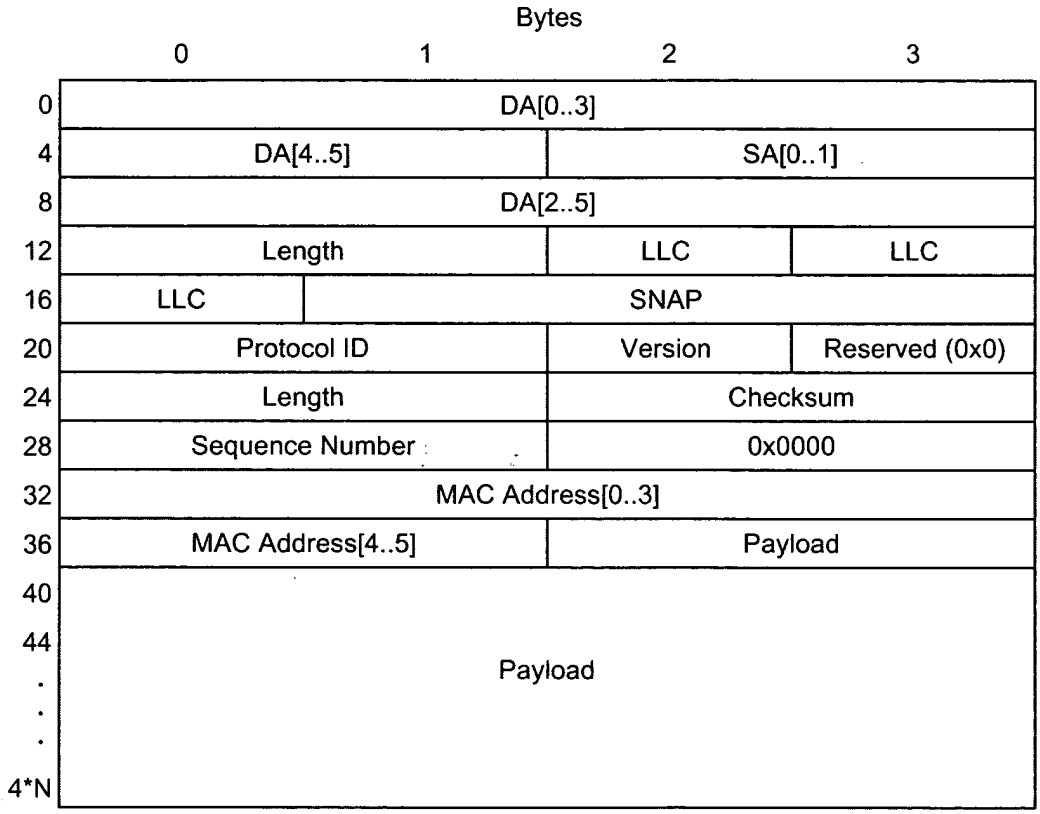
Bytes
0
1
2
3
0
DA[0..3]
4
DA[4..5]
SA[0..1]
8
DA[2..5]
12
Length
LLC
LLC
16
LLC
SNAP
20
Protocol ID
Version
Reserved (0x0)
24
Length
Checksum
28
Sequence Number
0x0000
32
MAC Address[0..3]
36
MAC Address[4..5]
Payload
40
44
Payload
4*N

FIG. 11

Bytes	0	1	2	3
0	0x99	AP_Announce	Length	
4	Hardware ID[0..3]			
8	Hardware ID[4..7]			
12	Hardware ID[8..11]			
16	Hardware ID[12..15]			
20	HW Major Rev.	HW Minor Rev.	HW Build#	
24	Boot Major Rev.	Bootrom Minor Rev.	Bootrom Build#	
28	Serial number[0..3]			
32	Serial number[4..7]			
36	Serial number[8..9]		AP Ethernet MAC[0..1]	
40	AP Ethernet MAC[2..5]			
44	HW_POST_STATUS			
48	HW_POST_OK			

FIG. 12

Bytes	0	1	2	3
0	0x99	Announce_Reply	Length	
4	AP IP Address			
8	AP IP Mask	Use_VLAN_TAG	VLAN Tag	
12	Default Gateway			
16	Switch IP Address			
20	AgentX Port		Physical SW Port if_index	
24	Keep-Alive Period	Image Type	Reserved	
28	Boot URL			
32	Boot URL			
36	Boot URL			

FIG. 13

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Bytes

	0	1	2	3
0	0x99	Renew_Config	Length	
4	AP IP Address			
8	AP IP Mask	Use_VLAN_TAG	VLAN Tag	
12	Default Gateway			
16	Switch IP Address			
20	AgentX Port		Physical SW Port index	
24	Keep-Alive Period	Reserved 8	Reserved 16	

FIG. 14

Bytes

	0	1	2	3
0	0x99	TFTP_OK	Length	
4	Image Type	Status	Retry #	Reserved

FIG. 15

Bytes

	0	1	2	3
0	0x99	AP_Keep_Alive	Length	

FIG.16

Bytes

	0	1	2	3
0	0x99	AP_Reset	Length	

FIG. 17

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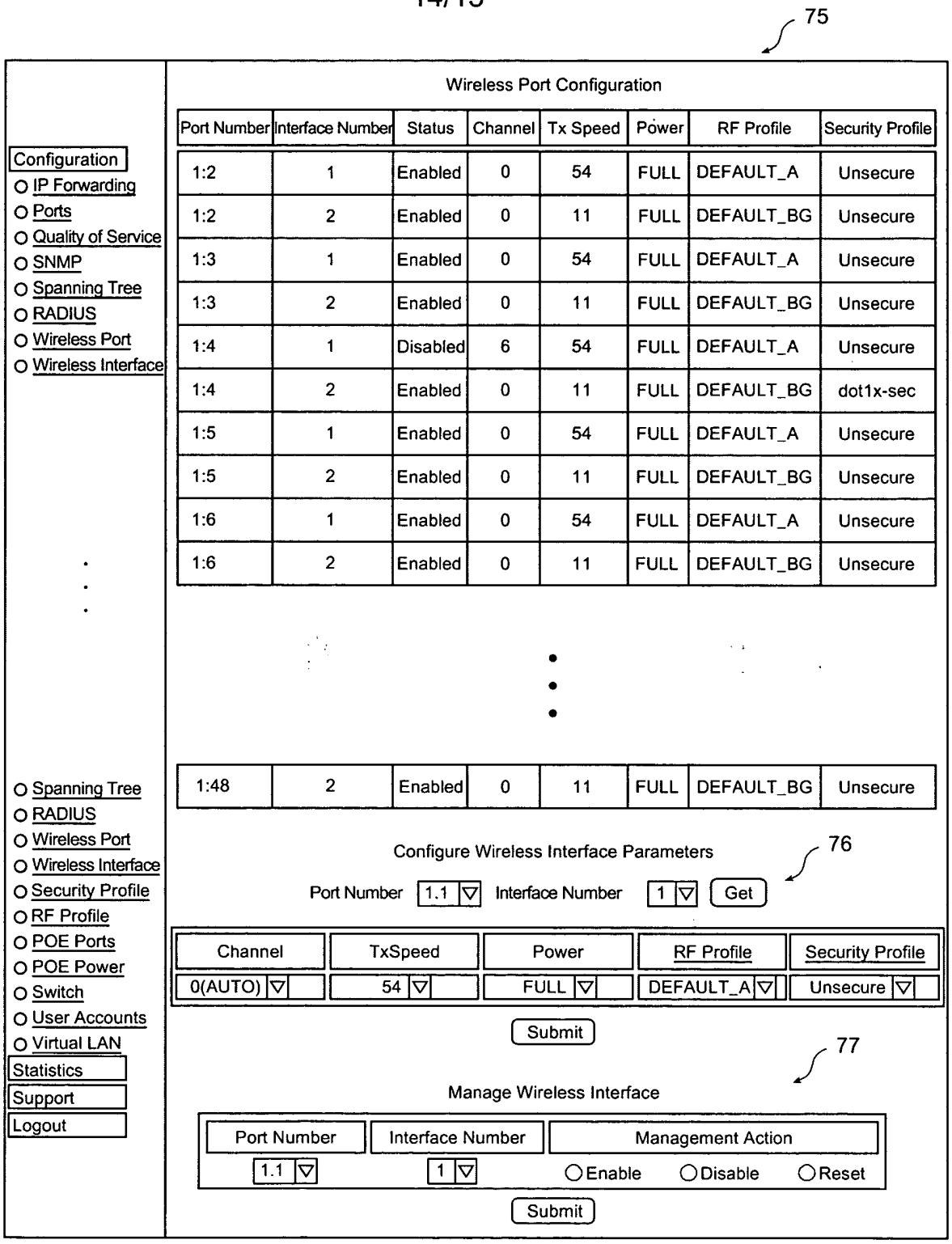
75
Wireless Port Configuration
Port Number
Interface Number
Status
Channel
Tx Speed
Power
RF Profile
Security Profile
1:2 1 Enabled 0 54 FULL DEFAULT_A Unsecure
1:2 2 Enabled 0 11 FULL DEFAULT_BG Unsecure
1:3 1 Enabled 0 54 FULL DEFAULT_A Unsecure
1:3 2 Enabled 0 11 FULL DEFAULT_BG Unsecure
1:4 1 Disabled 6 54 FULL DEFAULT_A Unsecure
1:4 2 Enabled 0 11 FULL DEFAULT_BG dot1x-sec
1:5 1 Enabled 0 54 FULL DEFAULT_A Unsecure
1:5 2 Enabled 0 11 FULL DEFAULT_BG Unsecure
1:6 1 Enabled 0 54 FULL DEFAULT_A Unsecure
1:6 2 Enabled 0 11 FULL DEFAULT_BG Unsecure
1:48 2 Enabled 0 11 FULL DEFAULT_BG Unsecure
Configuration
IP Forwarding
Ports
Quality of Service
SNMP
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Spanning Tree
RADIUS
Wireless Port
Wireless Interface
Security Profile
RF Profile
POE Ports
POE Power
Switch
User Accounts
Virtual LAN
Statistics
Support
Logout
Configure Wireless Interface Parameters
76
Port Number 1.1
Interface Number 1
Get
Channel
TxSpeed
Power
RF Profile
Security Profile
0(AUTO) 54 FULL DEFAULT_A Unsecure
Submit
77
Manage Wireless Interface
Port Number
Interface Number
Management Action
1.1 1
Enable
Disable
Reset
Submit

FIG. 18

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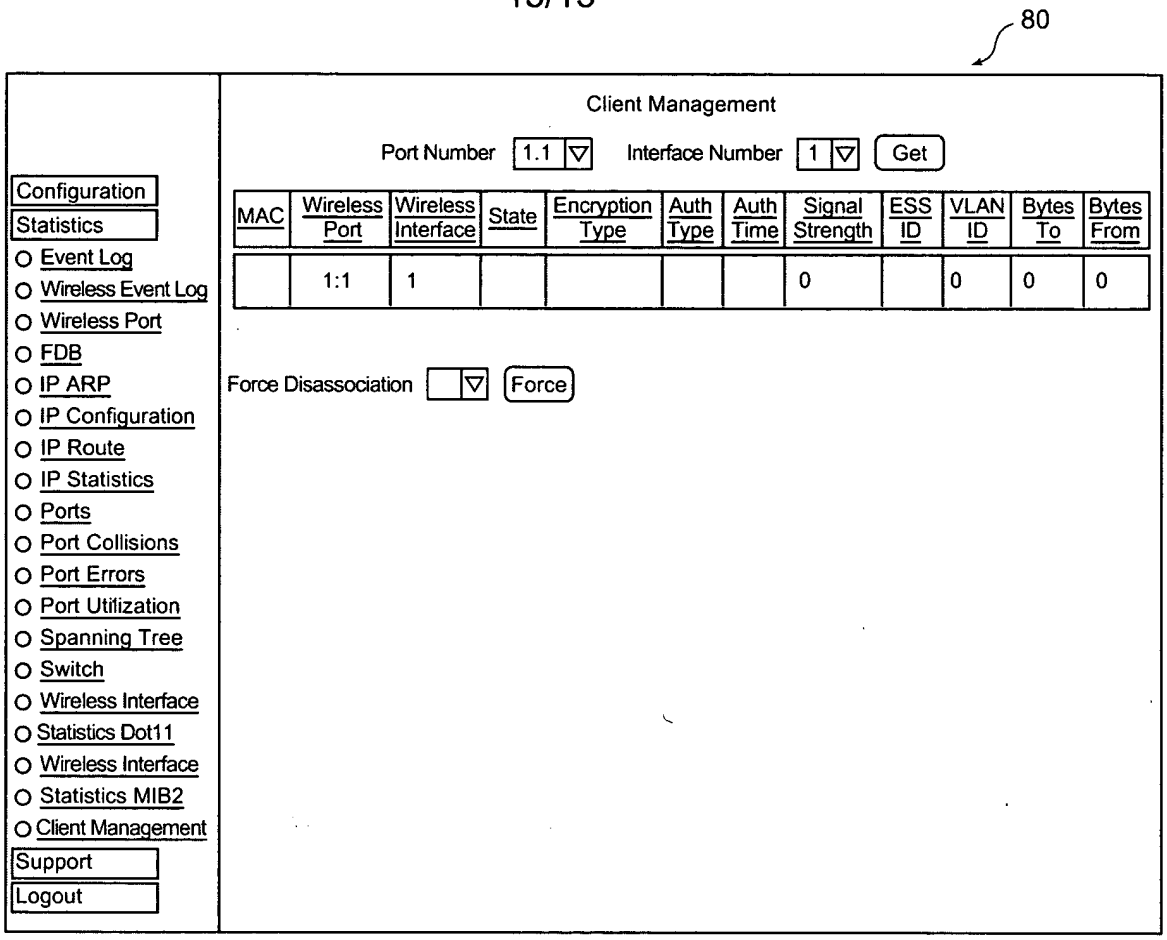
80
Client Management
Port Number 1.1
Interface Number 1
Get
Configuration
Statistics
Event Log
Wireless Event Log
Wireless Port
FDB
IP ARP
IP Configuration
IP Route
IP Statistics
Ports
Port Collisions
Port Errors
Port Utilization
Spanning Tree
Switch
Wireless Interface
Statistics Dot11
Wireless Interface
Statistics MIB2
Client Management
Support
Logout
MAC
Wireless Port
Wireless Interface
State
Encryption Type
Auth Type
Auth Time
Signal Strength
ESS ID
VLAN ID
Bytes To
Bytes From
1:1
1
0
0
0
0
Force Disassociation
Force

FIG. 19